

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph at page 8, lines 4-7 with the following:

The first embodiment of FIG. [[1]] 2 may further include an adjusted pixel value calculation unit 24, which compares the interpolated value of the input pixel with the original input pixel value and obtains an adjusted pixel value for the input pixel based on the comparison result.

Please replace the paragraphs at page 11, lines 8-33 with the following:

The estimation of the direction of the slant line is preferably carried out using a plurality of pixels adjacent to the input pixel. In a case where whether or not there is a possibility of the edge included in the input pixel forming a [[slat]] slant line is determined using the above-described method that is apparent in FIG. 3B, the direction estimator 221 uses differences b and c between the values of the pixels e and l and between the values of the pixels e and j. More specifically, when a difference b-c between b and c is smaller than or greater than 0, i.e., when b is smaller than c or vice versa, the direction estimator 221 may determine that the slant line extends along a 'b' or 'c' direction. This condition, however, may not be sufficient enough to determine the slant line to extend along the 'b' or 'c' direction because when there is only a small difference between b and c, it is very likely to end up in a wrong estimate of the direction of the slant line even though the slant line possibility determination unit 21 has already determined that the input pixel belongs to the slant line area. Due to the wrong estimation of the direction of the slant line, colors of an output image may spread undesirably.

Therefore, in order to estimate the direction of the slant line to extend along the `b` or `c` direction, two more conditions that $| b - c |$ is not smaller than a predetermined threshold value and that $| b - a |$ or $| b - a | + | c - a |$ is not smaller than a predetermined threshold value should be met. Here, `a` represents a difference between the values of the upper and lower pixels, and these threshold values are determined through experiments. If none of the above three conditions is satisfied or if b is equal to c , the input pixel is determined to exist in the vertical area.

Referring to FIG. 3C, if the edge included in the input pixel is determined to form a slant line in the above-described method that is apparent in FIG. 3C, the direction estimator 221 determines the slant line to be tilted rightward or leftward when two smaller ones among differences b , c , E , and $|E|$ between the values of the pixels g and j , between the values of the pixels e and l , between the values of the pixels d and m , and between the values of the pixels h and i are c and E or b and F .

Please replace the paragraphs at page 13, lines 5-11 with the following:

Referring to FIG. 4, when the input pixel X is determined to belong to the vertical area, the interpolated pixel value is obtained using the values of pixels $[n]$ h , o , f , k , p , and q , which belong to the same [[row]] column as the input pixel X but different odd fields from one another. On the other hand, when the input pixel X is determined to belong to the slant line area, the interpolated pixel value is obtained using the values of the upper and lower pixels f and k and the pixels e , g , j , and l diagonally adjacent to the input pixel X .